

# OSHKOSH PLS

## PALLETIZED LOAD SYSTEM SPECIFICATIONS



# OSHKOSH PLS

## A TOTAL DISTRIBUTION SYSTEM

Palletized Load System (PLS): a revolutionary concept in logistics. A highly mobile truck and trailer form a self-contained system that loads and unloads a wide range of cargo without the need for forklifts or other material handling equipment.

Truck and trailer each carry a demountable cargo bed called a flatrack. Each flatrack handles a 16.5 ton load, providing a 33 ton total capacity. The PLS has a hydraulically powered arm with a hook that lifts the flatrack on or off the truck. Up to ten pallets of supplies can be secured to a flatrack. A crane on the truck can drop off the pallets individually if the entire load is not needed. Without leaving the cab, the driver loads or unloads in less than one minute for the truck and less

than five minutes for both truck and trailer. The 10-wheel drive PLS truck is equipped with a 500 horsepower engine and a five speed automatic transmission. Central tire inflation gives PLS the ability to cross rugged terrain with ease. Over sand . . . rocks . . . mud . . . and on paved roads, the turn of a dial provides correct tire pressure to achieve superb mobility under varying conditions.

The pace of modern battle is accelerating rapidly. But an army can only move as fast as its supplies can keep up and modern combat weapon systems are only as effective as their logistics support. PLS enables logisticians to get supplies where they're needed, when they're needed. PLS—The Army's Total Distribution System.

### TRUCK (M1074, M1075)

#### ■ AXLES

Axle Configuration - 10 x 10 • Five axles • 1,2,5 steering  
Make and Model - Rockwell SVI 5MR  
Rated Capacity - 26,455 lb [12 000 kg] ea  
Type - Driving • Differential and planetary hub reduction • Double cardon joint steering axles  
Inter-Axle Differential Lock - Controlled by Central Tire Inflation System (CTIS)  
Intra-Axle Lock - Controlled by CTIS  
Gear Ratios -  
Final - 6.00:1  
Differential Carrier - 1.687:1  
Planetary Hub - 3.556:1

#### ■ BRAKES, PARKING AND EMERGENCY

Type - Spring brakes on axles 3, 4 and 5  
Secondary Emergency System - modulated split air type

#### ■ BRAKES, SERVICE

Make - Rockwell  
Type - Drum with internal shoe, air operated dual wedge system and automatic adjustment  
Size - 16.1 x 7.9 in [410 x 200 mm]

#### ■ CAB

Construction and Accessories - Extra heavy-duty • Welded steel construction with corrosion-resistant skins • Two-man, 96 in [2438 mm] cab width • Tinted safety glass throughout • Piano-type door hinges with stainless steel hinge pins • Suspension driver and passenger seats • Dual sun visors • Interior light • Two speed electric windshield wipers • Windshield washer • Electric horn • Heater and defroster • 3 point seat belts with retractors

#### ■ CAB (CONTINUED)

Instrumentation - US/metric gauges • Speedometer with odometer (miles) • Odometer (kilometers) • Gauges: Dual air pressure, engine oil pressure, fuel level, coolant temperature, tachometer with engine hour meter, transmission oil temperature • 12 and 24 voltmeter • Air cleaner restriction indicator • Auxilliary hydraulics activation light • Emergency steering system activation light • Engine brake indicator light • Engine and transmission malfunction indicator lights • High beam indicator light • High coolant temperature warning light/buzzer • LHS activation light • LHS no-transit indicator light • LHS overload indicator light • Low air pressure warning light/buzzer • Low hydraulic oil warning light/buzzer • Low oil pressure warning light/buzzer • Trailer flatrack unlocked indicator light • Transfer case lockup light • Turn signal indicator lights

#### ■ CENTRAL TIRE INFLATION SYSTEM (CTIS)

Preset Selections - Highway • Cross Country • Mud-Sand-Snow • Emergency

#### ■ CHASSIS EQUIPMENT

Auxiliary air supply connection • Blackout lights • Extra heavy-duty front bumper and skid plate • Front and rear identification and clearance lights • Front and rear tow eyes • Front, center and rear marker lights • Front steel fenders • Self-guided pintle hook • Service and emergency air brake connectors front and rear • Slave start connector • Spare tire and davit • Stop, tail and turn signal lights with four-way flashing front and rear • Stowage compartments • Trailer electrical connectors, 12 and 24 volt • Two sealed beam headlights • 100 gal [379 L] side mounted fuel tank

## ■ COOLING SYSTEM

Radiator Core - Fin and tube type, horizontal mount

Core Area - 2,023 in<sup>2</sup> [13 052 cm<sup>2</sup>]

Water Pump - Gear driven centrifugal type

Construction - Fabricated end tanks and side members bolted together to form a rigid frame surrounding the radiator core, built-in deaeration system

Fan - 41 in [1041 mm] eight-blade hydraulic driven

Temperature Modulated Hydraulic Drive Motor

Transmission/Converter Oil Cooler - Oil-to-water type located in rear end tank of radiator

## ■ CRUISING RANGE

GVW, Road - 336 mi [541 km]

## ■ ELECTRICAL SYSTEM

Alternator - 145 amp

Dual Voltage Alternator Control - Sure Power Duvac 12/24 volt controller

Optional 200 amp Nelhoff, self contained (has Sure Power built in regulator)

Starting/Accessories - 24 volt

Lighting - 12 volt

Battery - Four 12 volt, 600 CCA each @ 0° F [-17.8°C]

## ■ ENGINE

Make and Model - Detroit Diesel Model 8V92TA with DDEC II

Type - V8, two-cycle, turbo charged and aftercooled

Bore - 4.84 in [123 mm]

Stroke - 5.00 in [127 mm]

Displacement - 736 in<sup>3</sup> [12.06 l]

Brake HP\* - 500 [373 kW] @ 1,800 to 2,100 rpm

Peak Torque\* - 1,470 lbf·ft [1993 N·m] @ 1,200 rpm

\*SAE Standard Conditions - 29.36 in Hg [99.2 kPa] and 85 ° F [29°C]

## ■ FORDING

48 in [1219 mm]

## ■ FRAME

Type - Formed channel, bolted construction with Grade 8 bolts

Material - SAE 1027 modified, carbon manganese steel, heat treated

Yield Strength - 110,000 psi minimum [758 MPa]

Size - 14.00 x 3.50 x .38 in [356.0 x 89.0 x 9.5 mm]

Section Modulus - 26.27 in<sup>3</sup> [430 cm<sup>3</sup>] per rail

## ■ LOAD HANDLING SYSTEM\*

Make and Model - Multilift MK V

Capacity - 33,000 lb [14 969 kg] plus Flatrack

\*Under license with Multilift Ltd., England

## ■ SPEED, MAXIMUM

GCW, Road - 57 mph [91 km/h]

## ■ STEERING SYSTEM

Type - 3 axle Ackerman (front tandem plus rear axle), integral hydraulic main, slave and rear gears

Steering Gear Ratio - 23:1

Rear Steering Reduction Ratio - 2.21:1

Turning Circle - 119.6 ft [36.5 m] wall-to-wall

## ■ SUSPENSION

Front Tandem - Hendrickson RT-340, Walking Beam

Rear Tridem -

Hendrickson-Turner, Air Ride (3)

Hendrickson RT-400, Walking Beam (4,5)

## ■ TIRES

Type - 16.00R20 (XZLT)

Quantity - Ten plus one spare

Compatible with 24R21 widebase tires

## ■ TRANSFER CASE

Make and Model - Oshkosh 55000

Type - Two speed, full time 30/70 planetary torque split with air operated differential lock

Ratios - .958:1 and 2.464:1

## ■ TRANSMISSION

Make and Model - Allison CLT-755 ATEC

Type - Five speed automatic with TC-496 torque converter

Ratios -

Fifth - 1.000:1

Fourth - 1.383:1

Third - 2.021:1

Second - 3.191:1

First - 5.182:1

Reverse - 4.724:1

## ■TRANSPORTABILITY, AIR

C5A and C17 aircraft  
C141 with preparation

## ■WEIGHTS

Gross Combination Weight (GCW) - 137,500 lb  
[62 369kg] truck and trailer fully loaded with  
crane, all kits, basic issue items and crew  
Gross Vehicle Weight (GVW) - 88,000 lb  
[39 916 kg] with crane, all kits, basic issue items  
and crew  
Truck VCW with Crane - 55,000 lb [24 948 kg]  
with flatrack  
Truck VCW without Crane - 50,000 lb [22 680 kg]  
with flatrack

## ■WHEELBASE

224.2 in [5695 mm]

## ■WHEELS

Type - Two piece bolt-together, steel disc  
Size - 20 x 10 in [508 x 254 mm]

## TRUCK OPTIONS

### ■CRANE (M1074 ONLY)

Make and Model - Grove, PLS  
Rated Capacity -  
3,900 lb [1769 kg] @ 22.0 ft [6.7 m] radius  
4,500 lb [2041 kg] @ 19.0 ft [5.8 m] radius  
5,400 lb [2449 kg] @ 16.5 ft [5.0 m] radius

### ■WINCH, SELF-RECOVERY

Make and Model - dp Manufacturing, PLS-22K  
Capacity - 20,000 lbf [88 964 N]

### ■KIT

Engine arctic  
Personnel arctic  
Machine gun mounting  
Gas particulate filter  
Chemical alarm  
M13 decontamination apparatus  
200 amp alternator  
Radio installation

## TRAILER (M1076)\*

\*Under license with Lohr Industrie, France

### ■AXLES

Three Rockwell TN-4670Q

### ■BRAKES

16.5 x 7 in [419 x 178 mm] rotary S-cam • Air  
operated drum • Self adjusting slack adjusters on  
all axles • Parking and emergency brakes are  
provided on all axles

### ■CAPACITY

Maximum 33,000 lb [14 969 kg] plus flatrack

### ■CONSTRUCTION

Two-position drawbar with air lift assist • Air-  
operated flatrack lock/release • 12 and 24 volt  
lighting system • Turntable steer • Stowage box

### ■SUSPENSION

Front - Multiple leaf spring  
Rear - Hutchens H-900 single point

### ■TIRES

Make and Model - Michelin G20 Pilote  
Quantity - Six plus one spare

### ■WEIGHT

Empty - 16,500 lb [7484 kg] with flatrack  
(curb weight)  
Loaded - 49,500 lb [22 463 kg]

## FLATRACK (M1077)

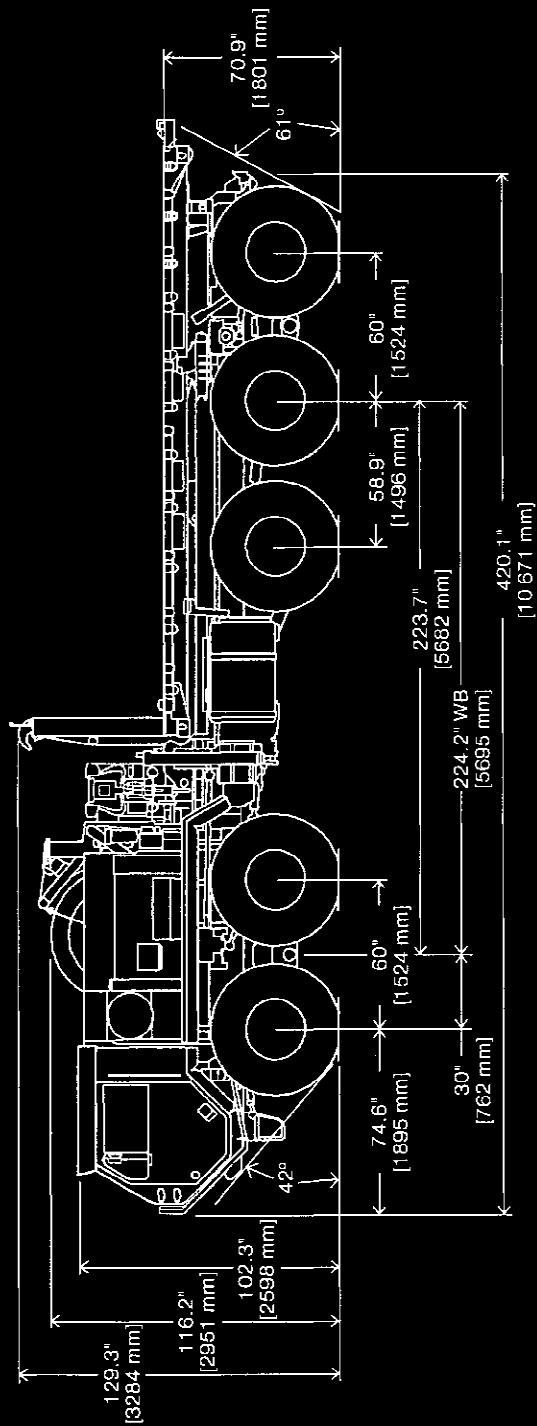
### ■DESIGN FEATURES

Cargo tie-down • Steel deck construction •  
Usable deck area: 89 x 227 in [226 x 5766 mm] •  
Removable rear rollers • Forklift pockets • Two  
lockable storage boxes • Four ISO twist locks to  
secure standard 20 ft [6.1 m] MIL-VAN • Thirty  
10,000 lb [4536 kg] tie-down rings • 14 cargo tie-  
down straps • Sideboard kit option

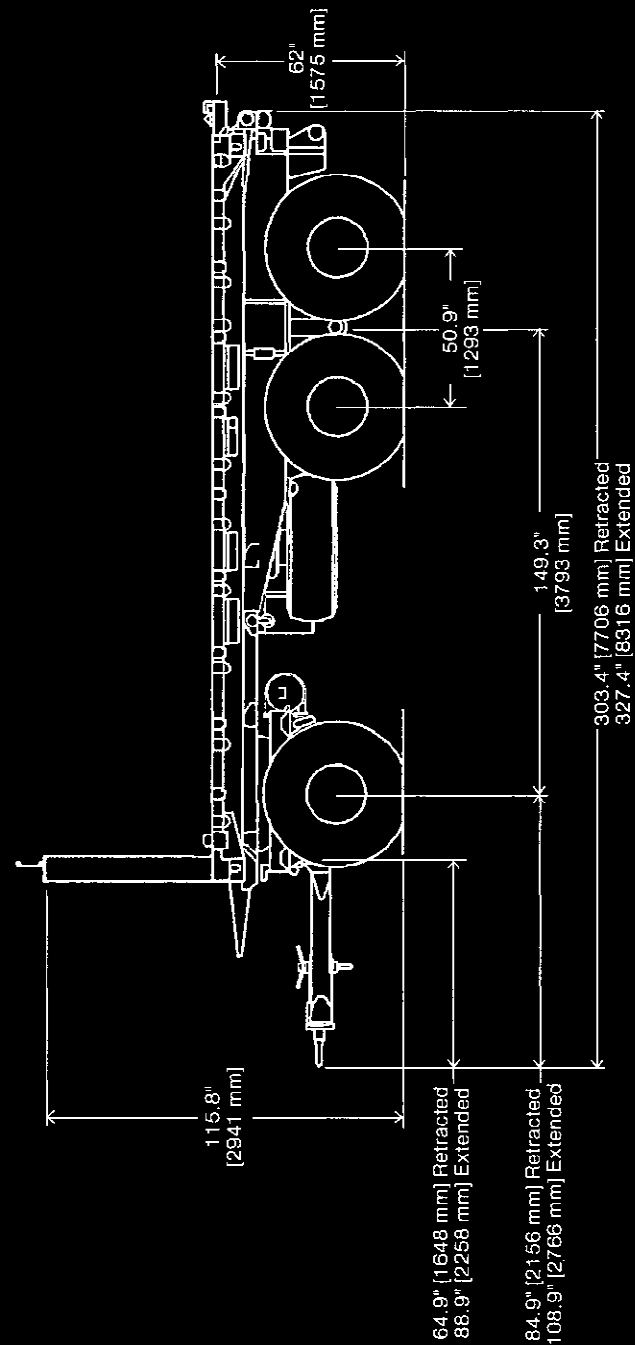
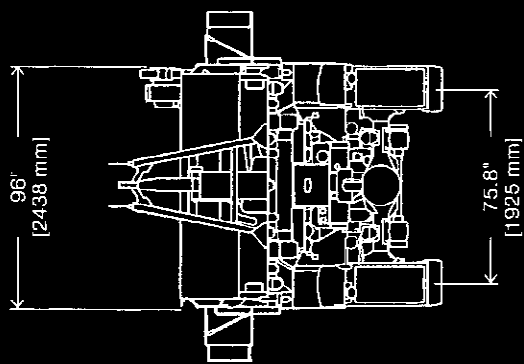
### ■WEIGHT

3,200 lb [1451 kg] without sideboards

**SIDE VIEW**

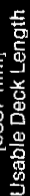


**REAR VIEW**

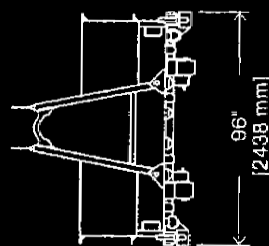




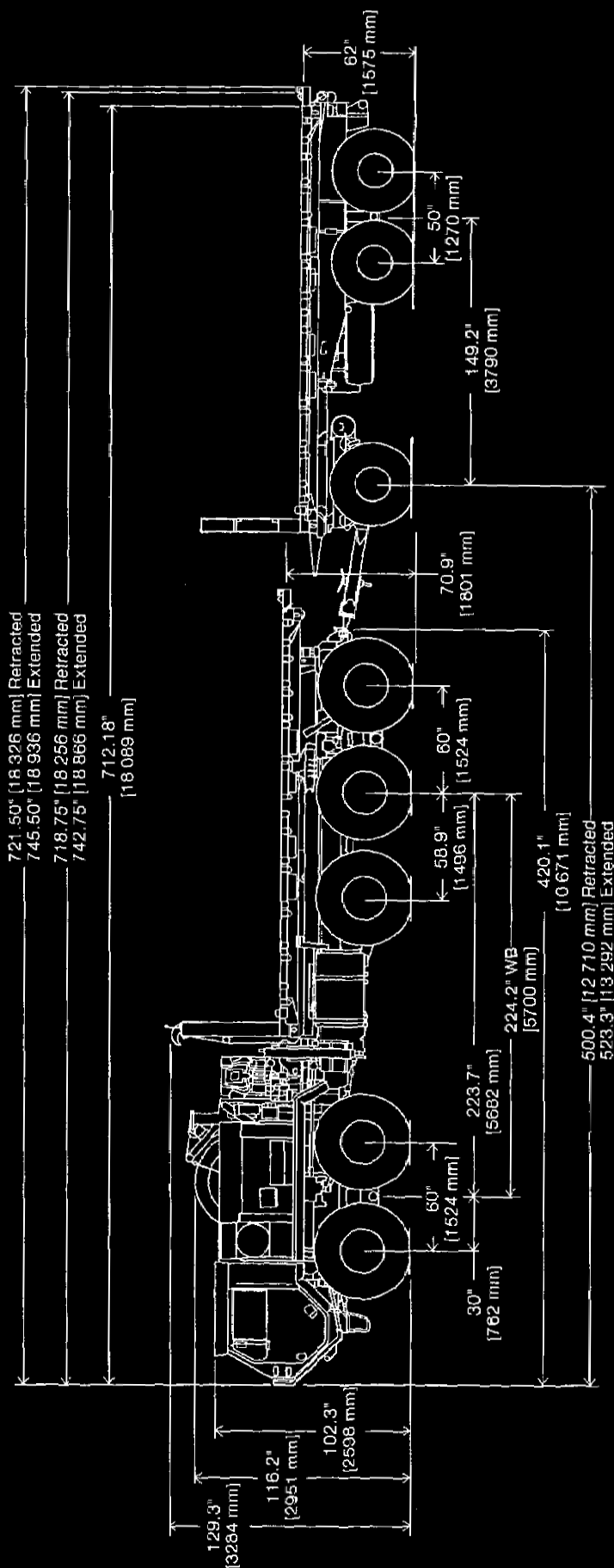
## TOP VIEW



### SIDE VIEW



## REAR VIEW



For reference only. The addition of options will change the listed standard dimensions in some cases. For certified dimensions, consult Oshkosh Truck Corporation.

Specifications, descriptions and illustrations in this literature are as accurate as known at the time of publication but are subject to change without notice. Ratings are general guidelines. Actual ratings vary with application and duty cycle.

Illustrations may include optional equipment and accessories but may not include all standard equipment. Consult Oshkosh Truck Corporation for additional information.

OSHKOSH TRUCK CORPORATION

P.O. Box 2566

Oshkosh, Wisconsin

54903-2566 • U.S.A.

(414) 235-9150

**FAX (414) 233-9540**